REMARKS

This communication is a full and timely response to the non-final Office Action dated July 13, 2004 (Paper No./Mail Date 20040701). By this communication, claims 2 and 5 have been canceled without prejudice. In addition, the specification and claims 1, 3, 4, 6, and 7 have been amended, and claim 8 has been newly added.

The specification was amended to improve idiomatic English. Applicant has enclosed both an annotated and clean copy of a substitute specification that incorporates all changes. No new matter has been added.

Claim 1 has been amended to incorporate the elements previously recited in claim 2 and to additionally recite switching the image lights to be synthesized by said display image light generation means between the image lights generated by said first image light generation means and the image lights generated by said second image light generation means based on dated provided in a predetermined image pattern input to said switching means. Support for the subject matter added to claim 1 can be found variously throughout the specification and claims, for example, at page 57 lines 2-10 of the specification and in original claim 2. No new matter has been added.

Claims 3 and 6 have been amended to remedy dependency issues and to recite the predetermined image pattern formed by image lights of said first color component group is embedded in an image formed from image lights of said second color component group. Support for the subject matter added to each of claims 3 and 6 can be found variously throughout the specification, for example, at page 57 lines 11-24 and page 58, lines 1-16. No new matter has been added.

Claim 4 was amended to incorporate the elements previously recited in claim 5 and to additionally recite to additionally recite switching the image lights to be synthesized by said display image light generation means between the image lights generated by said first image light generation step and the image lights generated by said second image light generation step based on dated provided in a predetermined image pattern input during said switching step. Support for the subject matter added to claim 4 can be found variously throughout the specification and claims, for example, at page 57 lines 2-10 of the specification and in original claim 5. No new matter has been added.

Claim 7 was amended to recite a second image light generator that generates image lights individually corresponding to a plurality of color components, which form said second

color component group;the display image light generator that synthesizes the image lights of the individual color components generated by the second image light generator to generate the single second display image light; and a switch that switches the image lights to be synthesized by the display image light generation step between the image lights generated by the first image light generator and the image lights generated by the second image light generator based on data provided through a predetermined image pattern input to said switch. Support for the subject matter recited in claim 7 can be found variously throughout the specification, for example, at page 52 line 9 through page 54 line 19. No new matter has been added.

Newly added claim 8 recites the predetermined image pattern formed by image lights of said first color component group is embedded in an image formed from image lights of said second color component group. Support for the subject matter added to claim 8 can be found variously throughout the specification, for example, at page 57 lines 11-24 and page 58, lines 1-16. No new matter has been added.

Claims 1, 3-5, 7, and 8 are pending where claims 1, 4, and 7 are independent.

35 U.S.C. §102

Claims 1-7 were rejected under 35 U.S.C. §102(e) as anticipated by *Horvath et al.*, U.S. Patent No. 6,736,514. Applicant respectfully traverses this rejection.

Claim 1 recites an image display apparatus, comprising first image light generation means for generating image lights individually corresponding to a plurality of color components, which form a single first color component group; and display image light generation means for synthesizing the image lights of the individual color components generated by said first image light generation means to generate a first display image light; said first image light generation means setting color component values of the individual color components, of the first color component group, so that the first display image light may be generated with a chromaticity point and a luminance equal to those of a second display image light , wherein the second display image light includes synthesized image lights individually corresponding to color components of a second color component group whose color components in combination are different from those of the first color component group, and wherein said first image light generation means generates image lights individually corresponding to the color components, of the first color component group based on the set color component values; second image light generation means for generating image lights

individually corresponding to the color components, which form said second color component group; said display image light generation means for synthesizing the image lights of the individual color components generated by said second image light generation means to generate the single second display image light; and switching means for switching the image lights to be synthesized by said display image light generation means between the image lights generated by said first image light generation means and the image lights generated by said second image light generation means based on data provided through a predetermined image pattern input to said switching means.

Claim 4 recites an image display method, comprising a first image light generation step of generating image lights individually corresponding to a plurality of color components, which form a first color component group; and a display image light generation step of synthesizing the image lights of the individual color components generated by the first image light generation step to generate a single first display image light; the first image light generation step setting color component values of the individual color components, which form the first color component group, so that the first display image light may be generated with a chromaticity point and a luminance equal to those of a second display image light to be generated by synthesizing image lights individually corresponding to color components of a second color component group whose color components in combination are different from those of the first color component group, the first image light generation step generating image lights individually corresponding to the color components, which form the first color component group, based on the set color component values; a second image light generation step generating image lights individually corresponding to the color components, which form the second color component group; the display image light generation step synthesizing the image lights of the individual color components generated by the second image light generation step to generate the single second display image light; and a switching step of switching the image lights to be synthesized by the display image light generation step between the image lights generated by the first image light generation step and the image lights generated by the second image light generation step based on data provided through a predetermined image pattern input to said switching means.

Claim 7 recites An image display apparatus, comprising first image light generator that generates image lights individually corresponding to a plurality of color components, which form a single first color component group; and display image light generator that

synthesizes the image lights of the individual color components generated by said first image light generator to generate a first display image light; said first image light generator setting color component values of the individual color components, which form the first color component group, so that the first display image light may be generated with a chromaticity point and a luminance equal to those of a second display image light to be generated by synthesizing image lights individually corresponding to color components of a second color component group whose color components in combination are different from those of the first color component group, said first image light generator generating image lights individually corresponding to the color components, which form the first color component group, based on the set color component values a second image light generator that generates image lights individually corresponding to a plurality of color components, which form said second color component group; the display image light generator that synthesizes the image lights of the individual color components generated by the second image light generator to generate the single second display image light; and a switch that switches the image lights to be synthesized by the display image light generation step between the image lights generated by the first image light generator and the image lights generated by the second image light generator based on data provided through a predetermined image pattern input to said switch.

In summary, claims 1, 4, and 7 recite an image display apparatus and method having first and second light generators. The first light generator generates synthesized light of a first color group and the second light generator generates synthesized light of a second color group, where the first and second color groups are not the same. A predetermined image pattern is input to a switch. The switch then displays light generated by either the first or second light generator based on the input image pattern.

Horvath discloses projection system that expands a color gamut by using paired spatial light modulators. In the projection system, a switching sequence for modulation timing waveforms is employed such that specific projected colors are not detected during each display period. The projection system can also vary light intensities and periods to display images that are acceptable to the human eye but cause objectionable color artifacts when sampled by video-camera circuitry. The modulation is performed such that the spatial light modulators alternately modulate, for example, red and green light during successive periods. *Horvath*, however, fails to disclose, teach, or suggest at least switching the image lights to be synthesized by said display image light generation means between the image

lights generated by said first image light generation means and the image lights generated by said second image light generation means based on data provided through a predetermined image pattern input to said switching means.

In contrast, *Horvath* teaches that each light component (red, green, blue, etc.) is modulated or switched based on a timing waveform or timing sequence (see fig. 7). Moreover, the timing required by specific device determines the characteristics of the signal provided to the spatial light modulators. Still further, *Horvath* teaches that alternate arrangements of the projection device are possible, but fails to disclose, teach, or suggest that these alternate arrangements include a predetermined image pattern input to said switching means. Accordingly, *Horvath* fails to anticipate claim 1.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. *See* Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As discussed above, *Horvath* fails to disclose, teach, or suggest every element recited in claim 1. Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. §102 be withdrawn, and this claim be allowed.

Based on the foregoing discussion, Applicant further submits *Horvath* fails to anticipate the subject matter recited in independent claims 4 and 7. Namely, *Horvath* fails to disclose, teach, or suggest at least switching the image lights to be synthesized by said display image light generation means between the image lights generated by said first image light generation step and the image lights generated by said second image light generation step based on dated provided through a predetermined image pattern input during said switching step, as recited in claim 4; and further fails to disclose, teach, or suggest at least a switch that switches the image lights to be synthesized by the display image light generation step between the image lights generated by the first image light generator and the image lights generated by the second image light generator based on data provided in a predetermined image pattern input to said switch, as recited in claim 7. Accordingly, Applicant respectfully requests that the rejection of claims 4 and 7 under §102 be withdrawn, and these claims be allowed.

Claims 2 and 5 have been canceled without prejudice. Therefore, the §102 rejection with respect to these claims is moot. Accordingly, Applicant respectfully requests that the rejection to claims 2 and 5 be withdrawn.

Claim 3 depends from claim 1, and claim 6 depends from claim 4. By virtue of this dependency, Applicant submits that claims 3 and 6 are allowable for at least the same reasons given above with respect to claims 1 and 4, respectively. In addition, Applicant submits that claims 3 and 6 are further distinguished over *Horvath* by the additional elements recited therein, and particularly with respect to each claimed combination. Applicant respectfully requests, therefore, that the rejection of claims 3 and 6 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

Newly Added Claim

Claim 8 depends from claim 7, and additionally recites the predetermined image pattern formed by image lights of said first color component group is embedded in an image formed from image lights of said second color component group. By virtue of its dependency, Applicant submits that claim 8 is allowable for at least the same reasons discussed above with respect to claim 7. In addition, Applicant submits that claim 8 is further distinguished over *Horvath* by the additional elements recited therein, and particularly with respect to the claimed combination. Accordingly, Applicant respectfully requests that claim 8 be considered and allowed.

Conclusion

Based on at least the foregoing amendments and remarks, Applicant submits that claims 1, 3-5, 7, and 8 are allowable, and this application is in condition for allowance. Accordingly, Applicant requests favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicant requests that the Examiner contact the undersigned attorney at the number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2828 from which the undersigned is authorized to draw.

Dated: October 8, 2004

Respectfully submitted,

By_____
Ronald P. Kananen
Registration No.: 24,104
Attorney for Applicant

RADER, FISHMAN & GRAUER, PLLC
Lion Building
1233 20th Street, N.W., Suite 501
Washington, D.C. 20036
Tel: (202) 955-3750
Fax: (202) 955-3751
Customer No. 23353

Enclosure(s): Marked-Up Version of Substitute Specification
Clean Version of Substitute Specification
Abstract of the Disclosure

DC168150

ABSTRACT OF THE DISCLOSURE

An image display apparatus and method is disclosed that can prevent shot-sneaking of an image displayed by a projector apparatus. The projector apparatus embeds a display image portion in which the same color is represented with another color space of R, Cy, and B by color space conversion as a shot-sneaking preventing image portion into an original image as a display image for which a color space of R, G, and B is used to reproduce a color. The shot-sneaking preventing image portion appears to the visual sense of the human being as the same color as that of the oringinal image. However, the color component values of R and B are different in terms of the color component values of R and B between the color space of R, G, and B and the color space of R, Cy, and B. Therefore, for example, if a camera that picks up an image in accordance with the R, G, B method is used to pick up an image of the display image, then the picked-up display image is reproduced in a color different from the original color.